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SEQUENCE LISTING

<110> De Leys, Robert J.  
Zheng, Jian

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<140> Not Assigned

<141> 1999-11-04

<160> 69

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Pro Leu Arg Asn Glu Phe Lys Tyr Phe Gln Arg Met Thr Thr Thr Ser  
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Ser Val Glu Gly Lys Gln Asn Leu Val Ile Met Gly Arg Lys Thr Trp  
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Phe Ser Ile Pro Glu Lys Asn Arg Pro Leu Lys Asp Arg Ile Asn Ile  
 65 70 75 80

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Val Leu Ser Arg Glu Leu Lys Glu Pro Pro Arg Gly Ala His Phe Leu  
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Ala Lys Ser Leu Asp Asp Ala Leu Arg Leu Ile Glu Gln Pro Glu Leu  
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Ala Ser Lys Val Asp Met Val Trp Ile Val Gly Gly Ser Ser Val Tyr  
 115 120 125

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Gly Lys Tyr Lys Leu Leu Pro Glu Tyr Pro Gly Val Leu Ser Glu Val  
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Gln Glu Glu Lys Gly Ile Lys Tyr Lys Phe Glu Val Tyr Glu Lys Lys  
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Gly Ser Arg Ser Ala Arg Leu Leu Leu Ser Gly Ile Val Gln Gln Gln  
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 35 40 45

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Ser Val Glu Gly Lys Gln Asn Leu Val Ile Met Gly Arg Lys Thr Trp  
 50 55 60

Phe Ser Ile Pro Glu Lys Asn Arg Pro Leu Lys Asp Arg Ile Asn Ile  
 65 70 75 80

25

Val Leu Ser Arg Glu Leu Lys Glu Pro Pro Arg Gly Ala His Phe Leu  
 85 90 95

30

Ala Lys Ser Leu Asp Asp Ala Leu Arg Leu Ile Glu Gln Pro Glu Leu  
 100 105 110

Ala Ser Lys Val Asp Met Val Trp Ile Val Gly Gly Ser Ser Val Tyr  
 115 120 125

35

Gln Glu Ala Met Asn Gln Pro Gly His Leu Arg Leu Phe Val Thr Arg  
 130 135 140

Ile Met Gln Glu Phe Glu Ser Asp Thr Phe Phe Pro Glu Ile Asp Leu  
 145 150 155 160

40

Gly Lys Tyr Lys Leu Leu Pro Glu Tyr Pro Gly Val Leu Ser Glu Val  
 165 170 175

Gln Glu Glu Lys Gly Ile Lys Tyr Lys Phe Glu Val Tyr Glu Lys Lys  
 180 185 190

45

Gly Ser Arg Ser Ala Arg Leu Leu Leu Ser Gly Ile Val Gln Gln Gln  
 195 200 205

50

Asn Asn Leu Leu Arg Ala Ile Glu Ala Gln Gln His Met Leu Gln Leu  
 210 215 220

Thr Ala Trp Gly Ile Lys Gln Leu Arg Ala Arg Leu Gln Ala Leu Glu  
 225 230 235 240

Thr Leu Met Gln Asn Gln Gln Arg Leu Asn Ser Trp Gly Cys Lys Gly  
 245 250 255  
 5 Arg Ile Ile Cys Tyr Thr Ser Ala Arg Trp His Ala Ser Trp Ser Asn  
 260 265 270  
 10 Lys Ser Leu Glu Asp Ile Trp Asp Asn Met Thr Trp Met Gln Trp Asp  
 275 280 285  
 Gln Gln Val Asn Asn Val Ser Ser Ile Ile Tyr Asp Lys Ile Leu Glu  
 290 295 300  
 15 Ala Gln Asp Gln Gln Glu Glu Asn Val Arg Glu Leu Leu Glu Leu Asp  
 305 310 315 320  
 Lys Trp Ala Ser Leu Trp Asn Trp Phe Asp Ile Thr Asn Trp Leu Trp  
 325 330 335  
 20 Tyr Ile Lys Ile Phe Ile Met Ile Val Gly Pro Glu Gln Lys Leu Ile  
 340 345 350  
 Ser Glu Glu Asp Leu Asn Ser Ala Val Asp His His His His His His  
 355 360 365  
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 30 <210> 59  
 <211> 23  
 <212> PRT  
 <213> Artificial Sequence  
 35 <220>  
 <223> Description of Artificial Sequence:HIV Consensus  
 Sequence  
 40 <400> 59  
 Asn Gln Gln Arg Leu Asn Ser Trp Gly Cys Lys Gly Arg Ile Ile Cys  
 1 5 10 15  
 Tyr Thr Ser Ala Arg Trp His  
 20  
 45  
 50 <210> 60  
 <211> 23  
 <212> PRT  
 <213> Artificial Sequence  
 <220>  
 <223> Description of Artificial Sequence:HIV Consensus  
 Sequence

<400> 60  
Xaa Gln Gln Arg Leu Asn Ser Trp Gly Cys Lys Gly Arg Ile Ile Cys  
1 5 10 15  
5 Tyr Thr Ser Ala Arg Trp His  
20

10 <210> 61  
<211> 23  
<212> PRT  
<213> Artificial Sequence

15 <220>  
<223> Description of Artificial Sequence:HIV Consensus  
Sequence

20 <400> 61  
Glu Gln Gln Arg Leu Asn Ser Trp Gly Cys Lys Gly Arg Ile Ile Cys  
1 5 10 15  
25 Tyr Thr Ser Ala Arg Trp His  
20

30 <210> 62  
<211> 28  
<212> PRT  
<213> Artificial Sequence

35 <220>  
<223> Description of Artificial Sequence:HIV Consensus  
Sequence

<400> 62  
Glu Thr Leu Met Gln Xaa Gln Gln Arg Leu Asn Ser Trp Gly Cys Lys  
1 5 10 15

40 Gly Arg Ile Ile Cys Tyr Thr Ser Ala Arg Trp His  
20 25

45 <210> 63  
<211> 30  
<212> PRT  
<213> Artificial Sequence

50 <220>  
<223> Description of Artificial Sequence:HIV Consensus  
Sequence



<400> 63

Gly Arg Glu Thr Leu Met Gln Xaa Gln Gln Arg Leu Asn Ser Trp Gly  
1 5 10 15

5 Cys Lys Gly Arg Ile Ile Cys Tyr Thr Ser Ala Arg Trp His  
20 25 30

<210> 64

10

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

15

<223> Description of Artificial Sequence:HIV Consensus  
Sequence

<400> 64

20

Arg Ala Arg Leu Gln Ala Leu Glu Thr Leu Met Gln Xaa Gln Gln Arg  
1 5 10 15

Leu Asn Ser Trp Gly Cys Lys Gly Arg Ile Ile Cys Tyr Thr Ser Ala  
20 25 30

25

Arg Trp His  
35

<210> 65

30

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

35

<223> Description of Artificial Sequence:HIV Consensus  
Sequence

<400> 65

40

Asp Gln Gln Val Asn Asn Val Ser Ser Ile Ile Tyr Asp Lys Ile Leu  
1 5 10 15

Glu Ala Gln Asp Gln Gln Glu Glu Asn Val Arg Glu Leu Leu Glu Leu  
20 25 30

45

Asp

<210> 66

50

<211> 220

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:HIV Consensus  
Sequence

<400> 66

5	Ala Arg Leu Leu Leu Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu
	1 5 10 15
	Arg Ala Ile Glu Ala Gln Gln His Met Leu Gln Leu Thr Ala Trp Gly
	20 25 30
10	Ile Lys Gln Leu Arg Ala Arg Leu Gln Ala Leu Glu Thr Leu Met Gln
	35 40 45
	Asn Gln Gln Arg Leu Asn Ser Trp Gly Cys Lys Gly Arg Ile Ile Cys
15	50 55 60
	Tyr Thr Ser Ala Arg Trp His Ala Ser Trp Ser Asn Lys Ser Leu Glu
	65 70 75 80
20	Asp Ile Trp Asp Asn Met Thr Trp Met Gln Trp Asp Gln Gln Val Asn
	85 90 95
	Asn Val Ser Ser Ile Ile Tyr Asp Lys Ile Leu Glu Ala Gln Asp Gln
25	100 105 110
	Gln Glu Glu Asn Val Arg Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser
	115 120 125
	Leu Trp Asn Trp Phe Asp Ile Thr Asn Trp Leu Trp Tyr Ile Lys Ile
30	130 135 140
	Phe Ile Met Ile Val Gly Gly Leu Val Gly Leu Arg Ile Val Phe Ala
	145 150 155 160
35	Val Leu Ser Ile Val Asn Arg Val Arg Gln Gly Tyr Ser Pro Leu Ser
	165 170 175
	Leu Gln Thr Arg Pro Pro Val Pro Arg Gly Pro Asp Arg Pro Glu Gly
40	180 185 190
	Ile Glu Glu Glu Gly Gly Glu Arg Asp Arg Asp Thr Ser Gly Arg Leu
	195 200 205
	Val His Gly Phe Leu Ala Ile Ile Trp Val Asp Leu
45	210 215 220

<210> 67

<211> 149

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:HIV Consensus

Sequence

5      <400> 67  
       Ala Arg Leu Leu Leu Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu  
       1                               5                               10                               15  
       Arg Ala Ile Glu Ala Gln Gln His Met Leu Gln Leu Thr Ala Trp Gly  
                               20                               25                               30  
 10     Ile Lys Gln Leu Arg Ala Arg Leu Gln Ala Leu Glu Thr Leu Met Gln  
                               35                               40                               45  
       Asn Gln Gln Arg Leu Asn Ser Trp Gly Cys Lys Gly Arg Ile Ile Cys  
                               50                               55                               60  
 15     Tyr Thr Ser Ala Arg Trp His Ala Ser Trp Ser Asn Lys Ser Leu Glu  
                               65                               70                               75                               80  
       Asp Ile Trp Asp Asn Met Thr Trp Met Gln Trp Asp Gln Gln Val Asn  
                               85                               90                               95  
       Asn Val Ser Ser Ile Ile Tyr Asp Lys Ile Leu Glu Ala Gln Asp Gln  
                               100                               105                               110  
 25     Gln Glu Glu Asn Val Arg Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser  
                               115                               120                               125  
       Leu Trp Asn Trp Phe Asp Ile Thr Asn Trp Leu Trp Tyr Ile Lys Ile  
                               130                               135                               140  
 30     Phe Ile Met Ile Val  
       145  
 35     <210> 68  
       <211> 23  
       <212> PRT  
       <213> Human immunodeficiency virus type 1  
 40     <400> 68  
       Asn Gln Gln Leu Leu Ser Leu Trp Gly Cys Lys Gly Lys Leu Val Cys  
       1                               5                               10                               15  
       Tyr Thr Ser Val Lys Trp Asn  
                               20  
 45  
 50     <210> 69  
       <211> 30  
       <212> PRT  
       <213> Artificial Sequence  
       <220>  
       <223> Description of Artificial Sequence: HIV Consensus

## Sequence

<400> 69

Gly Arg Glu Thr Leu Met Gln Asp Gln Gln Arg Leu Asn Ser Trp Gly  
1 5 10 15

Cys Lys Gly Arg Ile Ile Cys Tyr Thr Ser Ala Arg Trp His  
20 25 30

<210> 70

<211> 160

<212> PRT

<213> Human immunodeficiency virus type 1

<400> 70

Ala Ala Ile Gly Ala Leu Phe Leu Gly Phe Leu Gly Ala Ala Gly Ser  
1 5 10 15

Thr Met Gly Ala Ala Ser Val Thr Leu Thr Val Gln Ala Arg Leu Leu  
20 25 30

Leu Ser Gly Ile Val Gln Gln Gln Asn Asn Leu Leu Arg Ala Ile Glu  
35 40 45

Ala Gln Gln His Met Leu Gln Leu Thr Val Trp Gly Ile Lys Gln Leu  
50 55 60

Gln Ala Arg Val Leu Ala Val Glu Arg Tyr Leu Lys Asp Gln Gln Leu  
65 70 75 80

Leu Gly Phe Trp Gly Cys Ser Gly Lys Leu Ile Cys Thr Thr Thr Val  
85 90 95

Pro Trp Asn Ala Ser Trp Ser Asn Lys Ser Leu Asp Asp Ile Trp Asn  
100 105 110

Asn Met Thr Trp Met Gln Trp Glu Arg Glu Ile Asp Asn Tyr Thr Ser  
115 120 125

Leu Ile Tyr Ser Leu Leu Glu Lys Ser Gln Thr Gln Gln Glu Lys Asn  
130 135 140

Glu Gln Glu Leu Leu Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp  
145 150 155 160